

APPENDIX A - TYPE AND TREATMENT LEVEL OF FIRE MANAGEMENT ACTIVITIES TO MEET DESIRED RESOURCE CONDITIONS, BY FIELD OFFICE OF THE BLM, UPPER SNAKE RIVER DISTRICT

IDAHO FALLS FIELD OFFICE							
	Vegetation Type	Footprint Acres	Wildland Fire Use	Mechanical	Chemical	Rx Fire	Seeding
Alternative A (No Action)	1-Annual	0	0	0	0	0	0
	2-Aspen	200	0	0	0	200	0
	3-Dry	1,000	0	0	0	1,000	0
	4-Juniper	0	0	0	0	0	0
	5-Low	2,500	0	0	1,800	2,200	1,800
	6-Mid	16,500	0	0	6,700	16,450	6,700
	7-Mtn	200	0	0	200	200	0
	8-Other	100	0	0	0	100	0
	9-Perennial	1,750	0	0	1,700	250	1,700
	10-Riparian	320	0	0	0	320	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	220	0	0	0	220	0
Alternative B (Proposed Action)	1-Annual	0	0	0	0	0	0
	2-Aspen	6,100	2,600	5,200	480	7,600	175
	3-Dry	4,950	5,400	3,650	850	7,100	0
	4-Juniper	2,200	900	150	0	1,300	0
	5-Low	101,500	0	3,650	89,410	6,550	157,405
	6-Mid	56,990	10,470	6,850	15,300	27,450	1,155
	7-Mtn	5,080	5,030	1,750	325	3,950	0
	8-Other	5,780	5,780	0	585	0	0
	9-Perennial	52,600	0	2,550	13,650	1,900	34,740
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0
Alternative C	1-Annual	36	0	0	0	36	36
	2-Aspen	500	375	750	100	575	0
	3-Dry	800	525	1,800	350	1,425	0
	4-Juniper	3,300	450	2,900	750	2,100	600
	5-Low	55,200	0	0	55,200	55,200	55,200
	6-Mid	161,700	30,300	1,000	0	126,900	5,000
	7-Mtn	1,530	360	220	0	1,170	0
	8-Other	0	0	0	0	0	0
	9-Perennial	172,000	0	200	173,810	0	172,940
	10-Riparian	429	429	429	0	429	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	1,075	245	1,075	120	830	0
Alternative D (Preferred Alternative)	1-Annual	0	0	0	0	0	0
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	900	0	900	0	900	900
	5-Low	216,790	0	174,300	215,400	87,290	216,790
	6-Mid	78,220	0	83,220	85,220	72,270	41,220
	7-Mtn	9,730	0	9,730	9,730	5,330	7,330
	8-Other	0	0	0	0	0	0
	9-Perennial	257,000	0	94,000	257,000	24,600	257,000
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0

POCATELLO FIELD OFFICE							
Vegetation Type		Footprint Acres	Wildland Fire Use	Mechanical	Chemical	Rx Fire	Seeding
Alternative A (No Action)	1-Annual	0	0	0	0	0	0
	2-Aspen	1,600	0	1,600	0	1,600	0
	3-Dry	1,800	0	1,800	0	1,800	0
	4-Juniper	0	0	0	0	0	0
	5-Low	0	0	0	0	0	0
	6-Mid	0	0	0	0	0	0
	7-Mtn	0	0	0	0	0	0
	8-Other	0	0	0	0	0	0
	9-Perennial	0	0	0	0	0	0
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0
Alternative B	1-Annual	0	0	0	0	0	0
	2-Aspen	7,000	0	7,500	0	16,000	0
	3-Dry	6,200	0	6,975	0	9,575	0
	4-Juniper	3,500	0	8,975	0	12,275	0
	5-Low	0	0	0	0	0	0
	6-Mid	5,700	0	0	0	0	0
	7-Mtn	16,600	0	0	0	0	0
	8-Other	0	0	0	0	0	0
	9-Perennial	1,300	0	0	10,900	0	0
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	50	0	0	0
Alternative C	1-Annual	33	0	0	33	33	33
	2-Aspen	4,391	1,025	4,050	200	3,975	0
	3-Dry	5,366	975	5,000	0	4,775	0
	4-Juniper	18,000	2,200	17,300	3,550	12,550	4,600
	5-Low	2,700	0	0	2,700	2,700	2,700
	6-Mid	102,000	21,150	0	0	80,850	0
	7-Mtn	15,000	2,420	2,360	0	14,530	0
	8-Other	200	200	0	0	0	0
	9-Perennial	53,300	0	0	48,300	0	53,300
	10-Riparian	130	130	130	0	130	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	66	10	116	10	60	0
Alternative D (Preferred Alternative)	1-Annual	0	0	0	0	0	0
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	10,650	1,650	10,650	1,650	650	10,650
	5-Low	18,950	0	18,950	18,950	300	18,950
	6-Mid	21,900	0	21,900	21,900	2,600	21,900
	7-Mtn	16,500	2,800	16,500	16,500	2,750	16,500
	8-Other	0	0	0	0	0	0
	9-Perennial	50,200	0	50,200	50,200	7,500	50,200
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0

BURLEY FIELD OFFICE							
Vegetation Type		Footprint Acres	Wildland Fire Use	Mechanical	Chemical	Rx Fire	Seeding
Alternative A (No Action)	1-Annual	15,925	0	0	15,850	9,750	31,775
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	800	10,663	550	0	0	800
	5-Low	25,175	0	0	23,775	800	25,175
	6-Mid	7,575	0	50	2,825	425	7,525
	7-Mtn	2,625	0	100	75	500	2,550
	8-Other	3,350	0	0	3,350	0	3,350
	9-Perennial	57,625	0	1,175	55,750	775	57,625
	10-Riparian	50	0	0	0	0	50
	11-Salt	975	0	0	975	0	975
	12-Wet/Cold	0	0	0	0	0	0
Alternative B	1-Annual	24,850	0	0	20,200	5,850	34,200
	2-Aspen	500	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	24,650	2,000	6,800	1,800	6,750	8,350
	5-Low	15,750	0	2,600	3,250	2,700	4,650
	6-Mid	14,200	0	0	0	1,500	0
	7-Mtn	0	0	300	300	0	200
	8-Other	0	0	0	0	0	0
	9-Perennial	9,600	0	750	3,000	2,000	1,000
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0
Alternative C	1-Annual	49,069	0	0	49,069	49,069	49,069
	2-Aspen	147	50	150	0	150	0
	3-Dry	46	0	0	0	0	0
	4-Juniper	39,229	3,700	40,350	3,350	31,800	7,164
	5-Low	26,300	0	0	26,300	26,300	26,300
	6-Mid	106,063	17,063	0	0	89,000	500
	7-Mtn	12,000	1,710	1,150	0	10,790	0
	8-Other	1,500	1,500	0	0	0	0
	9-Perennial	109,600	0	0	110,600	0	109,600
	10-Riparian	0	0	0	0	20	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	46	0	0	0	0	0
Alternative D (Preferred Alternative)	1-Annual	48,850	0	48,850	48,850	48,700	52,400
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	17,600	10,350	16,000	2,300	8,150	17,600
	5-Low	29,300	0	29,300	29,300	5,775	29,300
	6-Mid	72,500	0	72,500	72,500	31,400	72,500
	7-Mtn	0	0	0	0	0	0
	8-Other	0	0	0	0	0	0
	9-Perennial	107,300	0	107,300	107,300	21,200	107,300
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0

SHOSHONE FIELD OFFICE							
Vegetation Type		Footprint Acres	Wildland Fire Use	Mechanical	Chemical	Rx Fire	Seeding
Alternative A (No Action)	1-Annual	6,700	0	950	6,700	0	13,475
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	0	0	0	0	0	0
	5-Low	5,525	0	275	5,525	0	5,525
	6-Mid	850	0	350	850	0	850
	7-Mtn	0	0	0	0	0	0
	8-Other	370	0	20	370	0	370
	9-Perennial	96,505	0	3,825	96,505	0	96,505
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0
Alternative B	1-Annual	102,500	49,000	0	102,500	92,500	205,000
	2-Aspen	750	0	400	250	500	550
	3-Dry	5,150	3,000	3,900	250	3,400	2,250
	4-Juniper	0	0	0	0	0	0
	5-Low	84,000	12,500	0	84,000	73,200	95,700
	6-Mid	17,550	7,000	1,850	8,500	13,650	5,450
	7-Mtn	550	0	350	0	550	350
	8-Other	0	0	0	0	0	0
	9-Perennial	70,500	8,500	0	70,500	59,700	69,700
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0
Alternative C	1-Annual	281,362	0	28,076	281,362	281,362	365,590
	2-Aspen	479	300	850	200	550	0
	3-Dry	2,043	826	2,850	200	2,850	0
	4-Juniper	0	0	0	0	0	0
	5-Low	62,831	0	4,000	62,831	62,831	74,831
	6-Mid	200,000	40,800	0	0	149,200	0
	7-Mtn	1,345	295	205	0	1,770	0
	8-Other	2,300	2,310	0	0	0	0
	9-Perennial	193,619	0	20,000	173,619	20,000	233,619
	10-Riparian	0	20	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	793	150	793	80	643	0
Alternative D (Preferred Alternative)	1-Annual	281,600	0	281,600	281,600	260,300	281,600
	2-Aspen	0	0	0	0	0	0
	3-Dry	0	0	0	0	0	0
	4-Juniper	0	0	0	0	0	0
	5-Low	112,230	0	112,230	112,230	33,000	112,230
	6-Mid	58,000	0	58,000	58,000	44,800	58,000
	7-Mtn	550	0	550	550	0	550
	8-Other	0	0	0	0	0	0
	9-Perennial	113,500	0	113,500	113,500	19,000	113,500
	10-Riparian	0	0	0	0	0	0
	11-Salt	0	0	0	0	0	0
	12-Wet/Cold	0	0	0	0	0	0

APPENDIX B - COMPARISON OF AMENDED LAND USE PLANS (LUPS) WITHIN THE BLM, UPPER SNAKE RIVER DISTRICT, BY ALTERNATIVE

The following tables compare and contrast potential land use planning direction and action changes for each Land Use Plan in the Upper Snake River District. The potential changes would occur based on which alternative is picked in the Record of Decision for the Fire, Fuels, and Related Vegetation Management Direction Plan Amendment Draft Environmental Impact Statement. This information is organized in columnar format to allow easy comparison between alternatives. The No Action Alternative represents current management direction, and Alternative D represents the BLM's Preferred Alternative.

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	1) Emphasize protection from and rehabilitation after wildland fire within the wildland urban interface. 2) Reduce fine fuels and invasive exotic plants to create perennial vegetation communities so that wildland fire occurs less frequently and at a smaller scale on the landscape. 3) Conduct vegetation treatments for resource benefits in Mid-Elevation Shrub, Juniper, Dry Conifer, Aspen/Conifer, and Mountain Shrub.	1) Make progress towards DFC in Low-Elevation Shrub, Perennial Grass, and Annual Grass types where wildland fire should occur less frequently and at a smaller scale on the landscape. 2) Make progress towards DFC in the Mid-Elevation Shrub, Juniper, Dry Conifer, Aspen/Conifer, and Mountain Shrub vegetation types where wildland fire should occur more frequently on the landscape. 3) Maintain or make progress towards DFC in the Wet/Cold Conifer, Salt Desert Shrub and plant communities where fire frequencies are within the historical range of variability.	1) Make progress towards DFC in Low-Elevation Shrub, Perennial Grass, and Annual Grass vegetation types so that wildland fire occurs less frequently and at a smaller scale on the landscape. Reduce by half the number of wildland fires in these vegetation types to create a wildland fire regime that mimics the historical conditions. 2) Make progress towards DFC in the Mid-Elevation Shrub, Juniper, Dry Conifer, Aspen/Conifer, and Mountain Shrub vegetation types by increasing the use of wildland fire and prescribed fire to better mimic historical conditions. 3) In Wet/Cold Conifer, Riparian, Salt Desert Shrub, and Other/Vegetated Lava vegetation types and/or areas in Fire Condition Class 1, maintain vegetation conditions using mechanical, chemical, prescribed fire, or wildland fire use treatments, such that wildland fire regimes	1) Make progress towards desired future conditions in the Low-Elevation Shrub, Perennial Grass, Annual Grass, Mid-Elevation Shrub, Mountain Shrub and Juniper plant communities. 2) Maintain, protect and expand source sage grouse habitats. 3) Improve and maintain sage grouse restoration and key habitats.

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
			are similar to historical conditions (i.e., maintain the current level of fire in these vegetation types).	
Fire management goals and objectives common to all alternatives	Wildland urban interface (WUI) areas were identified in the National Fire Plan as areas requiring protection and are common to all alternatives. Communities at Risk were identified and WUI areas are designated through County/City Mitigation plans initiated by local fire chiefs and through statewide interagency planning efforts. WUI areas exist around Communities at Risk (as defined in Federal Register Notice, Volume 66, August 17, 2001). The National Fire Plan mandates that priority be given to protecting these communities from wildland fire and to preventing fires started on private lands from spreading to public lands. In all alternatives developed including the No Action, WUI areas would take precedence if suppression resources are limited and life and property are threatened. Vegetation treatments in and around the WUI will be designed to mitigate fire hazard. Site-specific NEPA documentation would be required for all federally funded projects, regardless of ownership.			
Acres Suitable for Wildland Fire Use*	0 acres	427,500 acres	135,000 acres	800 acres
Acres Not Suitable for Wildland Fire Use	552,000 acres	124,500 acres	417,000 acres	142, 200 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	25,600 acres			
Restrictions on fire management practices if needed to protect resources	Assumptions <ul style="list-style-type: none"> • Sage grouse Stronghold Habitats would be protected and enhanced. • Key ecological components in plant and animal communities would be protected and enhanced. • Where fire is not an appropriate tool due to risk to life, property, or resources, use of mechanical and/or chemical treatments would be considered to meet resource management objectives. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<ul style="list-style-type: none"> All vegetation types would be moved towards DFC or from FRCC 2 and FRCC 3 towards FRCC 1. FRCC is an indicator of fire-related risk to key ecosystem components. A full description of FRCC is given in Section 3.2, Cohesive Strategy and Vegetation Resources (Issue 1). <p>Prioritization Criteria</p> <p>Wildland Urban Interface areas are identified in the National Fire Plan as requiring protection and are common to all alternatives. Communities-at-risk in the Wildland Urban Interface were identified in the <i>Federal Register</i> (66FR751 8/17/2001) and are assessed via County/Community Mitigation plans initiated by local fire chiefs and via statewide interagency planning efforts.</p> <p>The National Fire Plan mandates that priority be given to protecting these communities from wildland fire and to preventing fires that start on private lands from spreading to BLM-administered lands. In all four alternatives, Wildland Urban Interface areas would take precedence if suppression resources are limited and life and property are threatened. Vegetation treatments in and around Wildland Urban Interface areas would be conducted with the goal of reducing fire hazard.</p> <p>Fire Management Restrictions</p> <p>Certain wildland fire suppression activities and proactive treatment restrictions would be implemented under all alternatives and would be specified in each of the 12 LUP amendments. Certain restrictions would be applied to suppression activities with the intent of protecting sensitive resources. However, as wildland fire suppression is generally an emergency activity, a field office manager could choose to override the restrictions to protect life, property, or valuable resources. Suppression restrictions would be further defined within each zone's FMP and would be addressed in project-specific NEPA documents. All restrictions are intended to prevent significant impacts to natural and human resources. They are organized according to the resource discipline they protect and are considered in the analysis of all alternatives.</p> <p>Wildland Fire Suppression Restrictions</p> <p>The following suppression restrictions will be applied to all suppression actions occurring throughout the District, consistent with NFP policy and LUP direction:</p> <p>General</p> <ul style="list-style-type: none"> A Wildland Fire Situation Analysis will be initiated as per the Redbook (Interagency Standards for Fire and Aviation Operations) when: <ul style="list-style-type: none"> a wildland fire has not been contained by the initial attack resources dispatched to the fire, a wildland fire has not been contained within the management objectives identified in Section IIID of this plan. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<p>and</p> <ul style="list-style-type: none"> a wildland fire has not been contained within the first operational period and there is no estimate of containment or control. <p><i>Cultural Resources and Historic Trails</i></p> <ul style="list-style-type: none"> Dozer blading should not occur within 300 feet of playas or dry lakebeds to protect cultural resources. Buffer zones greater than 300 feet from playas and dry lakebeds are preferable. Dozer blading should not occur within 300 feet of known historic trails and cultural sites. An archaeologist will be notified of any cultural resources encountered during suppression activities. <p><i>Hazardous Materials</i></p> <ul style="list-style-type: none"> The use of hazardous substances for fire control would be avoided whenever practical. <p><i>Noxious Weeds</i></p> <ul style="list-style-type: none"> To minimize spread of noxious weeds, equipment used for extended attack or Type I/II incidents should be cleaned before arriving on-site and prior to leaving the incident. Staging areas and fire camps should avoid sites with noxious weed infestations. <p><i>Recreation</i></p> <ul style="list-style-type: none"> Developed recreation sites and structures on public lands will be protected. Follow Minimum Impact Suppression Techniques (MIST) guidelines where appropriate. <p><i>Riparian Areas</i></p> <ul style="list-style-type: none"> Dozer blading should not occur within 300 feet of perennial streams, unless approved by the authorized officer. Buffer zones greater than 300 feet from riparian areas are preferable. Avoid application of retardant or foam within 300 feet of waterways. Exceptions would be made to protect lives and property when safety is an immediate imperative, or under the direction of a Resource Advisor when an escape would cause more long-term damage to aquatic resources. <p><i>Special Management Areas</i></p> <ul style="list-style-type: none"> Within Wilderness Study Areas (WSAs), fuels and vegetation treatments and wildland fire management activities should follow BLM Manual H-8550-1, Interim Policy for Lands Under Wilderness Review. The use of earth-moving equipment within these areas requires approval of the authorized officer. Fire camps and staging areas should be placed outside of special management areas. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<ul style="list-style-type: none"> • Encourage use of natural firebreaks and existing roads and trails to contain a wildland fire. • Evaluate the resource values, hazards present, and management prescriptions within specific areas when applying guidelines to Areas of Critical Environmental Concern (ACECs). <p><i>Threatened, Endangered, and Sensitive (TES) Species</i></p> <ul style="list-style-type: none"> • Establishment of control lines, base camps, and support facilities should be avoided in habitat deemed critical for TES unless life and property are threatened. • Maintain interagency cooperation to facilitate coordinated fire management activities across administrative boundaries. • Field Managers will assign a BLM Resource Advisor to ensure that resource management concerns are adequately addressed and that necessary mitigation occurs. • Field Managers will ensure resource staff initiates emergency consultation with the USFWS whenever suppression activities impact listed species habitat. <p><i>Vegetation</i></p> <ul style="list-style-type: none"> • Blading should occur on existing roads where possible. Blading through undisturbed areas, especially those supporting native cover types, should be avoided unless necessary to protect life, property, or resource values. <p><i>Fire and Non-Fire Vegetation Treatment Restrictions</i></p> <p>The following fire and non-fire vegetation treatment restrictions will be applied to site-specific treatment actions occurring throughout the District, consistent with NFP policy and LUP direction:</p> <p><i>General</i></p> <p>To reduce potential resource impacts from chemical treatments, herbicide use would conform to application criteria described in the 1991 Environmental Impact Statement for Vegetation Treatment on BLM Lands in Thirteen Western States. Additionally, use would conform, to instructions from BLM Manual 9011 Chemical Pest Control, as well as label restrictions and current policies. In addition, the prescription for herbicide application (desired, optimum environmental conditions) would evaluate off-site migration and non-target species by assessing wind speed and direction, temperature, precipitation forecast, soil infiltration potential, constraints on overland water transport due to precipitation or flooding, establishment of riparian buffer strips, and risk to special status species. Fishery and/or wildlife biologists would assist project planners in selecting appropriate herbicides approved for aquatic use, when applicable, or for use among or near terrestrial fauna sensitive to herbicides.</p> <ul style="list-style-type: none"> • Consider the economic effects of alternative fuels management practices. Promote local involvement and economic benefits from fuels reduction projects. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<ul style="list-style-type: none"> Continue to collaborate with local partners to assess WUI areas and update existing mitigation plans to implement fuels treatments. <p><i>Air Quality</i></p> <ul style="list-style-type: none"> All fire activities on BLM-administered lands would be done in coordination with the Montana/Idaho Airshed Group Smoke Management Program. Under this program, RxFire and WFU could be restricted when regional or local air quality is compromised, or if the project would negatively affect visual quality in Class 1 Airsheds (Yellowstone and Grand Teton National Parks, Bridger Wilderness, Sawtooth Wilderness, and Craters of the Moon National Monument and Preserve Wilderness) Non-attainment Areas (PM10), and sensitive receptors. <p><i>Cultural Resources and Historic Trails</i></p> <ul style="list-style-type: none"> The FO will ensure that required and appropriate cultural resource inventories/surveys are complete prior to implementing site-specific fuels projects to meet BLM policy. Dozer blading should not occur within 300 feet of known historic trails and cultural sites. All proposed fire and non-fire (mechanical, chemical and seeding) vegetation treatment actions will be assessed in consultation with the SHPO for their potential to effect cultural resources. Where previous inventory has been sufficient to identify vulnerable cultural resources, no inventory should be needed. However, where adequate inventory is lacking, appropriate and required inventory of the area as determined in consultation with the SHPO will be conducted. All Rx Fires and fuels projects will be subject to further site-specific analyses and Section 106 of the National Historic Preservation Act compliance and consultation. A Class II or Class III inventory will be conducted of all proposed RxFire areas unless previous inventory has been deemed adequate in consultation with the SHPO. <p><i>Hazardous Materials and Abandoned Mine Sites</i></p> <ul style="list-style-type: none"> Hazardous materials and abandoned mine sites identified within any specific fuels management or vegetation treatment area would be avoided. <p><i>Livestock Grazing</i></p> <ul style="list-style-type: none"> All RxFire treatment areas would be rested from livestock grazing for a minimum of two growing seasons or until vegetation establishment and resource objectives are achieved. Monitoring criteria typically include soil stability and desired vegetation cover. Site-specific plans would address specific monitoring criteria. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<p><i>Placeholder species</i></p> <ul style="list-style-type: none"> Plant materials used in re-vegetation actions would be predominately native. However, non-native species may be used in re-vegetation actions on harsh or degraded sites where they are needed to structurally mimic the natural plant community and prevent soil loss and invasion by exotic annual grasses and noxious weeds. The species used would be those that have the highest probability of establishment on these sites. These “placeholders” would maintain the area for future native restoration. Native seed would be used more frequently and at larger scales as species adapted to local areas become more available. <p><i>Recreation</i></p> <ul style="list-style-type: none"> Treatments would be designed to minimize impacts to the managed recreation setting character and to the recreation experiences and benefits desired by the recreation participant. In areas where the setting character and/or the desired benefit outcomes are not defined, treatments in developed or high-use recreation areas would be designed to minimize impacts to the recreational resource or users. Treatments in developed or high-use recreation areas would be designed to minimize impacts to the recreational resource or users. <p><i>Riparian Areas</i></p> <ul style="list-style-type: none"> No dozer blading should occur within 300 feet of perennial streams. Buffer zones greater than 300 feet are preferable. <p><i>Special Management Areas</i></p> <ul style="list-style-type: none"> Within WSAs, fuels and vegetation treatments and WFU should follow BLM Manual H-8550-1, <i>Interim Policy for Lands Under Wilderness Review</i>. The use of earth-moving equipment within these areas requires approval of the authorized officer; however, minimizing use of tools is the preferred practice. <p><i>Threatened, Endangers, and Sensitive (TES) Species</i></p> <ul style="list-style-type: none"> All fuels management and vegetation treatment activities in areas supporting threatened and endangered species would be conducted in consultation with the USFWS. Fuels management and vegetation treatment activities would be conducted according to standards and guidelines in the Greater Yellowstone Bald Eagle Management Plan (Greater Yellowstone Bald Eagle Working Group 1996). Gray wolf (<i>Canis lupus</i>) populations in the area, which includes portions of the District, have been designated as experimental/nonessential. Presence or absence of gray wolf dens or rendezvous sites in fuels management or vegetation treatment areas would be determined prior to initiating projects. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<ul style="list-style-type: none"> Fuels management and vegetation treatments that may occur within Lynx Analysis Units (LAU) would be conducted according to standards and guidelines in the Canada Lynx Conservation and Assessment Strategy (USDA Forest Service & U.S. Fish and Wildlife Service 2000). Fuels management and vegetation treatments that may occur within the Little Lost River drainage would be conducted according to standards and guidelines developed for bull trout (<i>Salvelinus confluentus</i>) Riparian Habitat Conservation Areas on BLM lands within the geographic range of bull trout (U.S. Fish and Wildlife Service 1998, 1999). For those portions of the Snake River drainages that support populations of threatened and endangered Snake River mollusks, consult with the USFWS for fuels management and vegetation treatments where there is potential for effect. Fuels management and vegetation treatment areas within grizzly bear (<i>Ursus arctos horribilis</i>) management units (BMUs) would be coordinated with USFS activities to comply with restrictions on road density and number and juxtaposition of management activities within BMUs, as provided for in the Draft Conservation Strategy for the Grizzly Bear in the Yellowstone Area (USFWS 1999a), the 1997 Targhee National Forest Revised Forest Plan (USFS 1997), and in the Yellowstone Conservation Strategy (USFWS 2003), when it becomes effective. Riparian cottonwood forests with willow understories that may be impacted by fuels management and vegetation treatments would be surveyed for yellow-billed cuckoos (<i>Coccyzus americanus</i>) prior to initiating project activities. Fuels treatments proposed in areas supporting sage and sharp-tailed grouse would be coordinated with IDFG. Fuels treatments in areas supporting sage grouse and sharp-tailed grouse breeding and wintering habitat may be restricted as identified by LUPs. Sage grouse Key and Source Habitats would be maintained and enhanced when possible within Low- and Mid-Elevation Shrub types. Treatments to enhance and restore habitat would be focused in areas where the sagebrush component is lost or dead and the understory degraded. <p><i>Visual Resources</i></p> <ul style="list-style-type: none"> Treatments occurring in areas classified or inventoried as Visual Resource Management (VRM) Class I and II would consider visual qualities to preserve the landscape character. Wherever possible, landscape modifications would replicate a natural line, form, color and texture found in the surrounding area. Treatments that result in long-term disruption of natural visual qualities (e.g., drill seeding that establishes vegetation rows) should be avoided or hidden by design. 			

BENNETT HILLS – TIMMERMAN HILLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
	<p><i>Wildlife</i></p> <ul style="list-style-type: none">Seasonal guidelines may be applied if needed to mitigate the impacts to big game species from planned fuels management and vegetation treatments as specified in LUPs.Restrictions may be imposed on fuels management and vegetation treatment projects in areas supporting nesting raptors as per LUPs. Treatment proposals would be coordinated with IDFG. <p><i>Emergency Stabilization and Rehabilitation (ES&R) Restrictions</i></p> <p>The District’s Normal Fire Rehabilitation Plan contains ES&R restrictions that would be applied to all site-specific ES&R actions occurring throughout the District.</p> <p><i>Community Assistance/Protection Restrictions</i></p> <p>The following community assistance restrictions will be applied to site-specific community assessment actions occurring throughout the District, consistent with NFP policy and LUP direction:</p> <ul style="list-style-type: none">Continue to collaborate with local partners to assess WUI areas, update existing mitigation plans, and implement a prevention and education program.Work with other federal agencies, state, county and private entities to update County Mitigation PlansProvide Rural Fire Assistance (RFA), as identified in Mitigation Plans, to rural fire districts. Assess and increase suppression capabilities and effectiveness by providing RFA to local fire suppression organizations.Provide planning and implementation assistance to private landowners so hazardous fuels can be reduced as identified in Mitigation Plans.Provide funding to implement fire education projects identified in Mitigation Plans.To reduce fuel hazards and the threat of catastrophic fire events, including consideration of any local Community at Risk (CAR).			
<p>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</p> <p>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative.</p>				

BIG DESERT MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	270,300 acres	269,800 acres	1,100 acres
Acres Not Suitable for Wildland Fire Use	887,200 acres	616,900 acres	617,400 acres	886,100 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	41,100 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres</div>				

BIG LOST MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	155,100 acres	65,800 acres	5,200 acres
Acres Not Suitable for Wildland Fire Use	155,200 acres	100 acres	89,400 acres	150,000 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	7,200 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error. ** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.				

CASSIA RESOURCE MANAGEMENT PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	297,300 acres	259,000 acres	146,500 acres
Acres Not Suitable for Wildland Fire Use	470,000 acres	172,700 acres	211,000 acres	323,400 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	21,800 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

LITTLE LOST BIRCH CREEK MANAGEMENT FRAMEWORK PLAN				
Management Direction	No Action Alternative	Proposed Action Alternative	Optimum Fire Rotation Alternative	Sagebrush Steppe/ Sage Grouse Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	332,500 acres	38,400 acres	3,800 acres
Acres Not Suitable for Wildland Fire Use	332,900 acres	400 acres	294,500 acres	329,100 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	15,400 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.				
** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.				

MAGIC MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	24,600 acres	13,800 acres	0 acres
Acres Not Suitable for Wildland Fire Use	24,600 acres	0 acres	10,800 acres	24,600 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	1,100 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

MALAD MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	194,400 acres	249,700 acres	127,700 acres
Acres Not Suitable for Wildland Fire Use	359,500 acres	165,100 acres	109,800 acres	231,800 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	16,700 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

MEDICINE LODGE RESOURCE MANAGEMENT PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	458,800 acres	269,100 acres	7,600 acres
Acres Not Suitable for Wildland Fire Use	650,900 acres	192,100 acres	381,800 acres	643,300 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	30,100 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

MONUMENT RESOURCE MANAGEMENT PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	829,800 acres	240,400 acres	300 acres
Acres Not Suitable for Wildland Fire Use	1,224,300 acres	394,500 acres	983,900 acres	1,224,000 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	56,700 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.				
** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.				

POCATELLO RESOURCE MANAGEMENT PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	76,900 acres	222,700 acres	86,100 acres
Acres Not Suitable for Wildland Fire Use	260,400 acres	183,500 acres	37,700 acres	174,300 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	12,100 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error. ** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.				

SUN VALLEY MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	183,500 acres	216,600 acres	10,400 acres
Acres Not Suitable for Wildland Fire Use	248,700 acres	65,200 acres	32,100 acres	238,300 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	11,500 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

TWIN FALLS MANAGEMENT FRAMEWORK PLAN				
Management Direction	Alternative A - No Action	Alternative B - Proposed Action	Alternative C	Alternative D - Preferred Alternative
Fire management goals and objectives	See the goals and objectives for all four alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
Acres Suitable for Wildland Fire Use*	0 acres	81,900 acres	120,600 acres	40,600 acres
Acres Not Suitable for Wildland Fire Use	232,600 acres	150,700 acres	112,000 acres	192,000 acres
Anticipated type and level of fire activity and fuel treatment		Approximately 2.5 times the No Action Alternative level of treatment	Approximately 7 times the No Action Alternative level of treatment	Approximately 6 times the No Action Alternative level of treatment
Estimated footprint acres treated per decade**	10,800 acres			
Restrictions on fire management practices if needed to protect resources	See Fire Management Restrictions Common to All Alternatives as presented in the preceding Bennett Hills – Timmerman Hills Amendment table.			
<div>* All acre figures in this table are rounded to the nearest 100 acres and are subject to rounding error.</div> <div>** These footprint acres are estimated by multiplying the percent of the USRD that the LUP comprises by the total number of footprint acres proposed for treatment under the No Action Alternative. Acres are rounded to the nearest 100 acres.</div>				

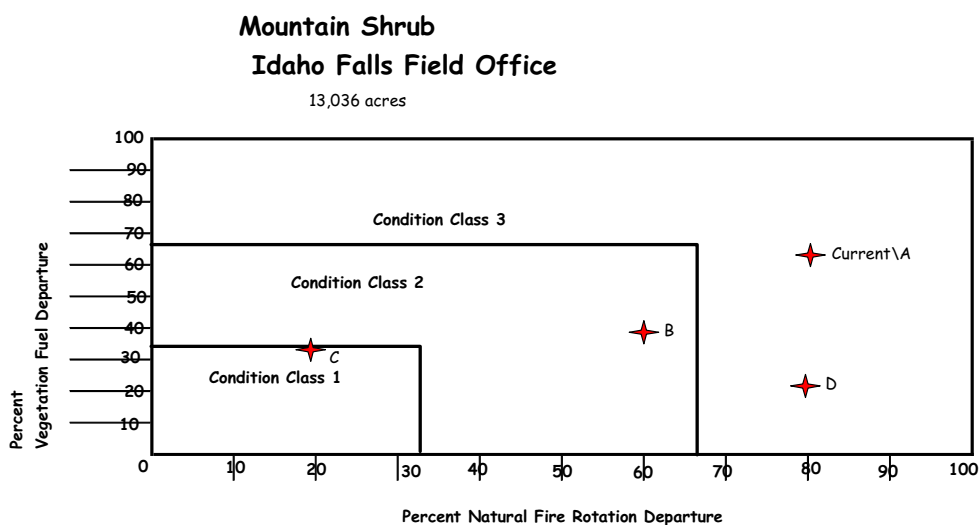
THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C -ASSUMPTIONS FOR FRCC CALCULATIONS

METHODOLOGY FOR CALCULATING FRCC – June 2, 2004

prepared by S. Heide and K. Waide

Displayed long-term effects of each alternative are based on the estimated differences or “departure” from desired vegetation/fuels conditions (i.e. proportions of age-class and/or uncharacteristic vegetation across the landscape) **and** departure from the natural fire rotation. Natural fire rotation is defined as the historic average number of years required in nature to burn over and reproduce an area equal to the total area under consideration (Heinselman 1973). Long-term effects were represented as a Fire Regime Condition Class (FRCC) rating and were calculated for each vegetation cover type by field office over a 30-year period. The “departures” discussed above were graphed for each alternative and compared. FRCC was a primary evaluation measure used in the vegetation and wildlife effects analysis. Below is an example of the resulting FRCC graph produced for the mountain shrub vegetation cover type in the Idaho Falls Field Office area. The vegetation/fuels departure is displayed on the y-axis and the natural fire rotation departure is displayed on the x-axis.



This analysis was based on the national interagency project scale Fire Regime Condition Class Methods Guide (<http://www.frcc.gov> as of May 3, 2004) with modifications. Modifications included using the natural fire rotation concept for the fire regime analysis (x-axis on the graph above) instead of using the reference fire frequencies and severities suggested in the national FRCC guide. This modification was possible and considered an improvement over the FRCC Guide protocol because thirty-two years of large wildland fire perimeter data were available in the USRD to calculate fire rotation by vegetation cover type. Quantitative field data on fire frequency and severity were not available across all vegetation cover types and across the District as a whole. The second modification included the use of successional pathway diagrams, which incorporated fire history data and past restoration/rehabilitation actions to estimate the vegetation/fuels

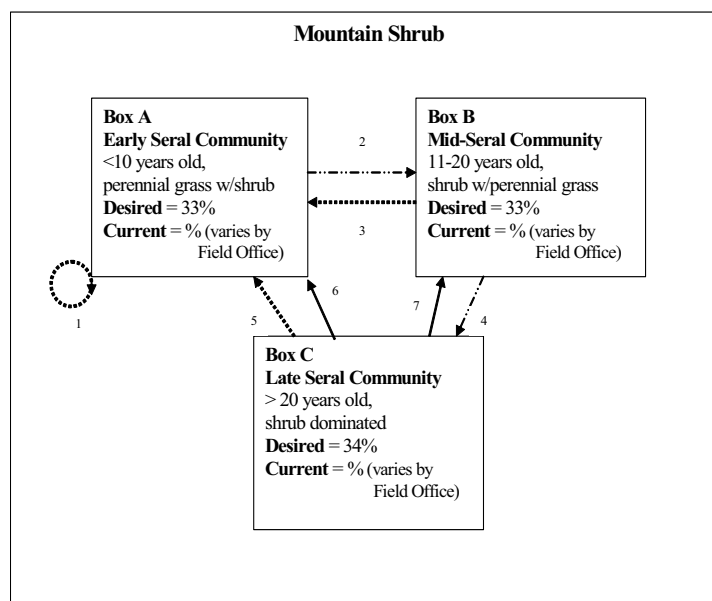
departure (y-axis on the graph above) from a Desired Future Condition (DFC) for each alternative. This modification allowed the team to analyze the effects of differing broad levels of treatment and priorities (Alternatives A through D) on vegetation structure and composition over the long run (30 years into the future).

The following data was used in the analysis:

- 1) Average annual burned acres calculated from actual 1972-2002 wildfire occurrence (in a digital GIS format)
- 2) Literature that references historic fire return intervals for USRD cover types
- 3) Average annual treatment acres calculated from actual 1995-2000 treatment acres
- 4) Estimated annual treatment acres BY ALTERNATIVE calculated from resource specialist estimates for 2003-2013
- 5) Estimated acres of areas with cheatgrass present as provided by resource specialists
- 6) Estimated acres of areas with introduced grasses present based on past rehabilitation efforts
- 7) Estimated acres of areas with juniper encroachment provided by resource specialists

VEGETATION/FUELS DEPARTURE CALCULATIONS (Y-AXIS)

For each field office, numerous successional pathway diagrams were developed - one per vegetation cover type or, in some cases, groups of vegetation cover types that succeed towards a potential natural vegetation community (e.g. aspen/conifer mix and dry conifer). These diagrams were used to model changes in vegetation structure that would occur given an alternative treatment level over the next ten years, predicted amount of wildland fire, and successional rates inherent to a vegetation cover type. Below is an example of the successional pathway diagram developed for the mountain shrub vegetation cover type.



The successional pathway diagram analysis was completed for each field office area separately. All successional pathway diagrams and assumptions used in the analysis are available in the FMDA administrative record.

Assumptions

Assumptions used in conjunction with the mountain shrub successional pathway diagram include:

solid arrow —————▶ = restoration treatments (for some vegetation cover types this would include rehabilitation treatments as well)
broken arrow - · - · - · ▶ = succession
dashed arrow▶ = wildland fire

Restoration

Arrows #6, #7 – 100 percent of total restoration acres occur in Box C; 70 percent of these acres move from Box C to Box A, the other 30 percent moves from Box C to Box B.

Succession

Arrows #2, #4 – In 30 years, 80 percent of acres in Box A moves to Box B due to succession. In 30 years 50 percent of acres in Box B moves to Box C due to succession.

Wildland Fire

Arrows #1, #3, #5 – Wildland fire acres occur in the same proportions as the mountain shrub successional community distribution for a field office (i.e. if 70 percent of the mountain shrub vegetation cover type is in a late seral stage (Box C) then 70 percent of the total wildland fire acres were assumed to occur in Box C).

Desired Future Condition (Vegetation/Fuels)

Desired Future Condition is a management objective that is expected to produce a distribution of vegetation age classes across the landscape, which will reduce hazardous fuels, promote a healthier and more diverse vegetation structure and composition and return the currently altered fire regimes to fire regimes that more closely parallel historical fire regimes. DFC varies among vegetation types and is a common objective among alternatives B, C, and D. Management goals and DFC for the District's vegetation cover types is presented in Chapter 4, Section 4.2.

Desired Future Condition (DFC) was determined for each vegetation cover type using the assumptions and methodology described below:

- Fire Return Interval was assumed to be the mid-point of the range of years derived from the scientific literature and/or from expert opinion. For example, estimates of historical fire return intervals for Low Elevation Shrub range from 60 to 110 years

between wildland fire; the mid-point of 85 years/wildland fire was used in the calculation of DFC for this vegetation cover type. Assumption: on average, about 1.18 percent of this cover type would be expected to burn every year (85 years between wildland fire equals 0.0118 fires per year, which, when multiplied by 100, equals 1.18 percent, the average annual percentage burned per year).

- Correction for Uncharacteristic vegetation: Uncharacteristic vegetation cover types are included in the analysis. They are expected to remain as small proportions of the District's vegetation for the foreseeable future because their complete eradication has proven to be extremely difficult. Percentages of uncharacteristic vegetation allowed or permitted within each vegetation cover type were estimated. In Low Elevation Shrub, up to 15 percent of total vegetation cover would be allowed for cheatgrass/weeds and 5 percent for crested wheatgrass. Added together (20 percent) and subtracted from the whole, this indicates that 80 percent (0.8) of Low Elevation Shrub would consist of characteristic, or native, species.
- Seral Stages: The longevities of different seral stages (age-classes) were estimated. For Low Elevation Shrub this was: 15 years for the early seral community (< 15 years old); 15 years for the mid-seral community (15- to 30 years old); and 31+ years for the late seral community (> 30 years old).

Calculation of DFC:

DFC = (Average annual % burned per year) X (Proportion of characteristic vegetation allowed) X (Longevity of seral stage in years)

e.g., Low Elevation Shrub, Early Seral Community < 15 years old:

DFC = (0.0118) X (0.8) X (15) = (0.14) or 14 percent

The DFC chosen for each vegetation cover type reflects the overall mixture of seral communities expected over time across a field office area given a rate (or range of rates) of disturbance similar to that of historical times (pre-European settlement). The underlying assumption being that, through time, plants and animals have evolved and adapted to a similar rate of disturbance and should therefore be more resilient and less likely to be at risk of loss of key ecosystem components in the face of large and/or severe disturbance.

Current Acreage Percentages

Current acreage percentages within each box (successional community) were derived using the 32-year fire history data for each vegetation cover type (by field office). These were compared to the DFC acreage percentages identified for that vegetation cover type. The dissimilarity rating between the current successional community percentages and the DFC percentages represents the current FRCC vegetation/fuels departure (i.e. current Y-axis departure).

To analyze the effects of each alternative, acres of treatment proposed, successional timeframes specific to each vegetation cover type, and expected levels of wildland fire (in this order) were processed through the successional pathway diagrams using specific assumptions developed for each vegetation cover type. For our purposes, mechanical treatments were treated as a disturbance similar to wildland fire (in its effect on succession). The suite of restoration and rehabilitation treatments used in Low-Elevation Shrub (Rx fire, chemical, and seeding) were assumed to make this vegetation cover type more resilient to wildland fire – eventually reducing the number of acres burned over the long-term. The end result of the successional pathway diagram runs (proportion of acreage within each successional community [or box] after 30 years time) were compared to DFC percentages. The dissimilarity rating between an alternative's successional community acreage percentages and the DFC acreage percentages represents the FRCC vegetation/fuels departure for that alternative across vegetation cover types (see the national interagency project scale Fire Regime Condition Class Methods Guide for additional details on calculating dissimilarity ratings).

NATURAL FIRE ROTATION CALCULATIONS (X-AXIS)

Natural Fire Rotation (NFR) is defined as the average number of years required in nature to burn over and reproduce an area equal to the total area under consideration (Heinselman 1973). A NFR for each vegetation type was determined by conducting a literature search for research studies that described historic fire return intervals specific to vegetation cover types found within the northern Rocky Mountain and Great Basin regions. NFR represents the historic (pre-European man) fire rotation for each vegetation cover type and also defines our desired fire rotation to which current and alternative fire rotations are compared. For analysis of the alternatives, the “area under consideration” was determined to be the total number of acres of a given vegetation cover type within a field office area. Mechanical treatments were assumed to have similar effects on a vegetation community as fire. An equation was used to arrive at fire rotation as follows:

$$\frac{\text{(Total Time Period)}}{\text{(Proportion of Area Burned and Treated in Time Period)}} = \text{NFR}$$

where:

Total Time Period =

Current fire rotation – 32 years past fire history

Alternative's fire rotation by vegetation cover type - length of long-term effects analysis
(30 years into the future)

Proportion of Area Burned and Treated in Time Period =

number of acres burned by wildland fire, using the Wildland Fire Reduction Ratio, where appropriate, as described below, and treated (restoration and/or rehabilitation) within a vegetation cover type divided by the total number of acres within that vegetation cover type .

Departure from desired fire rotation was determined by first estimating the current fire rotation using the total acres within a vegetation cover type and the acres burned in that vegetation cover type during the period 1972-2002. Second, the desired fire rotation was determined with the assumption that the desired rotation should be approximately equal to the historic rotation. A literature search was conducted and a “historic” fire rotation was assigned to each cover type as referenced in pertinent literature for the USRD cover types (See Chapter 3 Section 3.2 for estimated historic fire rotation by vegetation cover type). Third, each alternative’s fire rotation by vegetation cover type was determined by running levels of treatment and estimated wildland fire acres (assumed to be at a level similar to the previous 30 years for all vegetation cover types except low elevation shrub, annual and perennial grass where the wildland fire reduction ratio was applied – see below) through the fire rotation equation. Fourth, the current and alternative fire rotations by vegetation cover type were compared to the historical/desired fire rotations. The dissimilarity rating between an alternative’s fire rotation and the desired fire rotation for a given vegetation cover type represents the FRCC natural fire rotation departure (see the national interagency project scale Fire Regime Condition Class Methods Guide for additional details on calculating dissimilarity ratings).

Wildland Fire Reduction Ratios

In those vegetation cover types where more acres burned than the historic fire rotation would have allowed over the last 32 years (i.e. low elevation shrub, annual and perennial grass), there needed to be a way to show that proposed restoration and rehabilitation treatments would be effective in reducing the number of acres burned over the next 30 years. To account for this, we established wildland fire reduction ratios for each alternative by dividing the No Action 10-year treatment acreage by an alternative’s 10- year treatment acreage. The acres of wildland fire seen in the District over the last 30 years was multiplied by an alternative’s wildfire reduction ratio and the result was the number of wildland fire acres used in both the successional pathway diagram analysis (y-axis) and the natural fire rotation analysis (x-axis; long-term effect = 30 years into the future).

MONITORING FOR FRCC IN THE FUTURE

Refining FRCC methods to the project scale (mid-scale FRCC):

- ◆ Use the FRCC methodology described above for your project area (see bullets below for additional guidance as well as the national interagency project scale Fire Regime Condition Class Methods Guide - <http://www.frcc.gov> as of May 3, 2004).
- ◆ FRCC calculations should be completed prior to setting objectives and implementing treatments within units of a project area. FRCC calculations should be recalculated on a five-year rotation in preparation for District-wide data calls. Fire Use Specialists for each field office could complete project-scale FRCC calculations with the assistance of fire GIS personnel.
- ◆ Convert fire atlas and past fuels/range/forestry/wildlife treatment boundaries within the project area to a digital spatial format (GIS coverage)

- ◆ GPS all wildland fire, fuels treatment, or other restoration treatment perimeters (include in your mapping large islands of unburned/untreated vegetation if possible) over the life of the project. Amend digital fire/treatment atlas at the end of each calendar year.

Y-AXIS (Vegetation/Fuels Departure)

- ◆ For the project area, determine “CURRENT” proportions of age-classes/successional stages by vegetation cover type (i.e. potential natural community) (successional classes = early, middle, late, uncharacteristic) – we suggest the use of digital wildfire/treatment GIS coverage in conjunction with FMDA assumptions (concerning the number of years it generally takes a vegetation cover type to move from an early to middle age-class/successional stage and from a middle to late age-class/successional stage - i.e. the break points between stages) AND any digital spatial data on uncharacteristic vegetation including noxious or exotic weed infestation areas, juniper encroachment areas, etc. Refine age-class/successional stage and uncharacteristic vegetation proportion estimates using field inventories if possible.
- ◆ For similarity calculations between “CURRENT” and “DESIRED FUTURE CONDITION”, use DFC age-class percentages by vegetation cover type identified in FMDA as a starting point – adjust if necessary to take into consideration the project area concerns/information provided by staff specialists, interested publics, etc.

X-AXIS (Natural Fire Rotation Departure)

- ◆ For the project area, determine “CURRENT” fire rotation by vegetation cover type using the digital wildfire/treatment GIS coverage.
- ◆ For similarity calculations between “CURRENT” and “DESIRED FUTURE CONDITION” use the Natural Fire Rotation mid-points (by vegetation cover type) as identified in FMDA for the “DESIRED” fire rotation.

Roll up FRCC data from all project areas within District:

- ◆ District-wide data calls should be made on a five-year rotation.
- ◆ Data can be summarized into number of FRCC 1, 2, and 3 acres by vegetation cover type within the District as a whole.
- ◆ The District-wide FRCC data roll-up could be completed by the District Fire Ecologist or the District Fire Use Specialist with the assistance of fire GIS personnel.

Natural (historical) fire regime classes from Hardy et al. (2001) and Schmidt et al. (2002)			
Fire Regime Group	Fire Return Interval	Fire Severity	Vegetation Type¹
I	0 to 35 years	Low severity	Open forest or savannah maintained by frequent fire; also includes mixed severity fires that include a mosaic of different age post-fire open forest, early to mid-seral forest structural stages, and shrub or herb dominated patches (generally less than 100 acres). Interval can range up to 50 years.
II	0 to 35 years	Stand replacement severity	Shrub or grasslands maintained or cycled by frequent fire; fires kill non-sprouting shrubs such as sagebrush, which typically regenerate and become dominant within 10 to 15 years; fires removed tops of sprouting shrubs such as mesquite and chaparral, which typically resprout and dominate within 5 years; fires typically kill most tree regeneration such as juniper, pinyon pine, ponderosa pine, Douglas-fir, or lodgepole pine. Interval can range up to 50 years
III	35 to 100+ years	Mixed severity	Mosaic of different age post-fire open forest, early to mid-seral forest structural stages, and shrub or herb dominated patches (generally less than 100 acres) maintained or cycled by infrequent fire. Interval can range up to 200 years.
IV	35 to 100+ years	Stand replacement severity	Large patches (generally more than 100 acres) of similar age post-fire shrub or herb dominated structures, or early to mid-seral forest cycled by infrequent fire. Interval can range up to 200 years.
V	> 200 years	Stand replacement severity	Large patches (generally more than 100 acres) of similar age post-fire shrub or herb dominated structures, or early to mid to late seral forest cycled by infrequent fire

APPENDIX D - ACRES SUITABLE AND NOT SUITABLE FOR WILDLAND FIRE USE (WFU) BY ALTERNATIVE AND FIELD OFFICE

ACRES SUITABLE AND NOT SUITABLE BY ALTERNATIVE FOR WILDLAND FIRE USE (WFU) BY FIELD OFFICE.								
Field Office	Alternative A (No Action)		Alternative B		Alternative C		Alternative D (Preferred Alternative)	
	Not Suitable	Suitable	Not Suitable	Suitable	Not Suitable	Suitable	Not Suitable	Suitable
Idaho Falls	2,025,774	0	809,527	1,216,247	1,383,112	642,666	2,007,575	17,805
Pocatello	617,362	0	346,095	271,267	147,048	470,313	403,950	212,810
Burley	982,004	0	485,572	496,431	521,779	460,226	1,763,222	11,496
Shoshone	1,774,740	0	425,259	1,349,482	1,245,536	529,203	794,070	187,598
Total	5,399,880	0	2,066,453	3,333,427	3,297,475	2,102,408	4,968,817	429,709

Criteria used to designate areas suitable for Wildland Fire Use (WFU) were different for each alternative. There are no areas designated suitable for WFU in Alternative A – No Action. This is because the twelve existing LUPs lack specific guidance for WFU. A few of the existing LUPs, however, allow “limited suppression”, which may be interpreted as similar to WFU. Areas designated as suitable for WFU in Alternative B were designated where a controlled wildland fire (WFU) would benefit resources and help achieve management goals. Areas designated as suitable for WFU in Alternative C were limited to the vegetation cover types that have degraded over the last century because of too little fire, shifts in species dominance, and accumulation of fuels. These cover types include Aspen/Conifer, Dry Conifer, Mid-elevation Shrub, Juniper, Mountain Shrub, and Wet/Cold Conifer. Areas designated as suitable for WFU in Alternative D were limited to sagebrush steppe areas that have presently degraded to domination by the Juniper cover type or the Mountain Shrub cover type in more mesic sites that generally do not require rehabilitation following fires. WFU may be allowed in sage grouse habitats for the benefit of the habitat only after site-specific project level consultation/collaboration with IDFG.

THIS PAGE INTENTIONALLY LEFT BLANK